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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,470	10/27/2003	Brian Keith Cabral	MSFT-2830/191773.02	2508

23377 7590 10/04/2005  
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EXAMINER
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WOODS, ERIC V

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<b>Application No.</b> 10/694,470	<b>Applicant(s)</b> CABRAL ET AL.	
	<b>Examiner</b> Eric V. Woods	<b>Art Unit</b> 2672	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 09 September 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
 b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: \_\_\_\_\_.

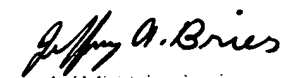
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
 See Continuation Sheet.  
 12. ☒ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
 13. ☐ Other: \_\_\_\_\_.

  
 JEFFREY A. BRIES  
 PRIMARY EXAMINER

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments are not persuasive. The BRDF of Bastos clearly does teach the rendering of such pre-integrated total reflected radiance values, since the BRDF (Bi-Directional Reflectance Distribution Function) is a function that describes how an object looks differently from different angles, based on wavelength of light and the nature of the object(s). Very clearly, knowing how an object reflects light from all angles in terms of both specular and diffuse components allows the pre-computation of total reflected radiance values, since that would just be a function of the applied illumination convolved with the BRDF of the object. Examiner does NOT (as applicant appears to assert) concede on page 4 of the Office Action that Bastos does not suggest source radiance environment maps because it is inherent. Note page 1 of Bastos where the incoming radiance is a separate entity from the BRDF. Clearly, "what is reflected", e.g. the incoming radiance would inherently constitute a "source radiance environment map" or at least suggest such. The examiner (and Office) are allowed to change such positions, so long as they do effect that grounds of rejection (e.g. references and the order in which they are applied). Something that is "pre-computed" obviously is integrated with the data before it is sent. Applicant is using a narrow definition of the word "integrate" that is not supported in the specification, and in any case would constitute an impermissible importation of limitations from the specification into the claims (as per *In re Van Geuns*). Examiner is required to give claims their broadest reasonable interpretation (*In re Morris*, MPEP 2105-2106). As stated above, Percy of course at least suggests such pre-integration, but as noted above, given the Percy pre-computes such data, it would be obvious that it would be pre-integrated for at least the above reasons and the advantages that Percy discusses it having. Additionally, applicant argues that Percy does not disclose the source radiance environment map having total reflected radiance values (already discussed as above), that Percy does not disclose or suggest a source radiance map having an associated source viewing vector – this is irrelevant, in that the BRDF of Bastos is "known" to be angle-dependent, e.g. it very much depends on the view direction (see Debevec for example on this particular point), so this limitation is also inherent. Finally, in light of Bastos' teaching, it would have been obvious to modify the system of Percy such that such bump maps "were" view-dependent for at least the above reasons.

Examiner strongly suggests that applicant's representative for a telephone interview -- examiner believes that the application has allowable subject matter, but the claims need to be narrowed and the language tweaked. Examiner would be happy to make such suggestions on how the claims could be placed into better form, with the understanding that such amendments would have to be filed in an RCE, as they could not be entered in another AF amendment, since they would raise new issues, require further consideration, and require a new search.